

## South Carolina Trawl Characterization

Prepared by the Atlantic States Marine Fisheries Commission

### ***TRAWLS***

#### **1.1.1 Bottom Otter Trawls**

##### 1.1.1.1.1 Gear Description

South Carolina's bottom otter trawl fishery includes shrimp trawls, crab trawls, and whelk trawls.

##### 1.1.1.1.2 Number of Licensed and Active Fishermen

South Carolina issues both Resident and Non-Resident Trawl Licenses. The total licenses issued decreased from 2001 to 2005 (Table 1). The number of active otter trawl fishermen in 2004 was 270 (ACCSP 2006).

Table 1. The number of resident and non-resident otter trawl licenses issued from 2001 to 2005

<b>Year</b>	<b>Resident Licenses Issued</b>	<b>Non-Resident Licenses Issued</b>	<b>Total Licenses Issued</b>
<b>2001</b>	418	269	687
<b>2002</b>	403	314	717
<b>2003</b>	372	199	571
<b>2004</b>	365	190	555
<b>2005</b>	337	151	488

##### *1.1.1.2 Blue Crab Trawls*

##### 1.1.1.2.1 Gear Description

South Carolina regulations require a minimum mesh size of four inches (ten centimeters) stretched for blue crab trawling (SCMRA Section 50-5-750).

##### 1.1.1.2.2 Number of Licensed and Active Fishermen

For the total number of otter trawl licenses issued from 2001 to 2005 and the number of active fishermen in 2004, see section 4.1.1.1.2.

##### 1.1.1.2.3 Effort

South Carolina's blue crab trawl fishery is a winter fishery (Murphy 2006). The SCDNR sets the season for taking blue crabs by trawl, but it must be between December 1 and March 31 (Chapter 5 of Title 50; SCCOL Section 50-5-740). Crabs are also retained as bycatch in the shrimp trawl fishery during the open shrimp trawling season. For areas open to trawling see SCCOL Section 50-5-700. It is unlawful to trawl at night (SCCOL Section 50-5-735). Specific information on the depth fished is not available, but trawlers usually work in 15-40 ft. (D. Whitaker, SCDNR).

##### 1.1.1.2.4 Status of the Fishery

There was no information available on the status and trends in the blue crab trawl fishery.

#### 1.1.1.2.5 Sea Turtle Bycatch

Blue crab trawls are not required to have TEDs (Murphy 2006). There is no state-run observer program for the blue crab trawl fishery. Sea turtles rarely enter South Carolina water before the season ends (March 31).

#### 1.1.1.2.6 Laws and Regulations

South Carolina regulations require a minimum mesh size of four inches (ten centimeters) stretched for blue crab trawling (SCMRA Section 50-5-750). It is unlawful to trawl at night (SCMRA Section 50-5-735). The SCDNR sets the season for taking blue crabs by trawl, but it must be between December 1 and March 31 (SCMRA Section 50-5-740).

### 1.1.1.3 *Shrimp Trawls*

#### 1.1.1.3.1 Gear Description

Shrimp trawls footropes are generally 40 to 50 feet (12 to 15 meters), and the mesh size is 1-7/8 inches (4.8 centimeters) stretched (Delancey 2005). For a general description of otter trawls see section 4.1.2.1 of the main appendix.

#### 1.1.1.3.2 Gear Deployment

The number of trawls towed ranges from one for outboard boats, to up to four. Vessels towing four trawls are 40 to more than 70 feet (12 to more than 21 meters) long. The maximum combined footrope is 220 feet (67 meters). The trawls are weighed with chain along the footrope, which is attached to the trawl doors. There are several floats attached to the headrope. Shrimp trawls are trawled over the bottom for one to five hours per tow. “Tongue” or four-seam trawls are used primarily for white shrimp, and have proportionately more webbing fishing higher in the water column than “flat” or two-seam trawls, which are used for brown shrimp (Delancey 2005).

#### 1.1.1.3.3 Targeted Species

Shrimp trawls target white, brown, and pink shrimp. Less than one percent of the total catch is pink shrimp (Delancey 2005).

#### 1.1.1.3.4 Number of Licensed and Active Fishermen

For the total number of otter trawl licenses issued from 2001 to 2005 and the number of active fishermen in 2004, see section 4.1.1.1.2.

#### 1.1.1.3.5 Effort

Most effort occurs in state waters when the trawling season is opened by DNR notice, from May/June through December/early January. Trawling is restricted to oceanic and lower sound and bay areas (Delancey 2005). For areas open to trawling see SCMRA Section 50-5-700. It is unlawful to trawl at night (SCMRA Section 50-5-735). Information on the depth fished was not available, but trawlers typically trawl in 15-40 ft. In 2004 highest effort occurred in late summer/early fall, and was concentrated in state waters (Figure 1, Table 1-1).

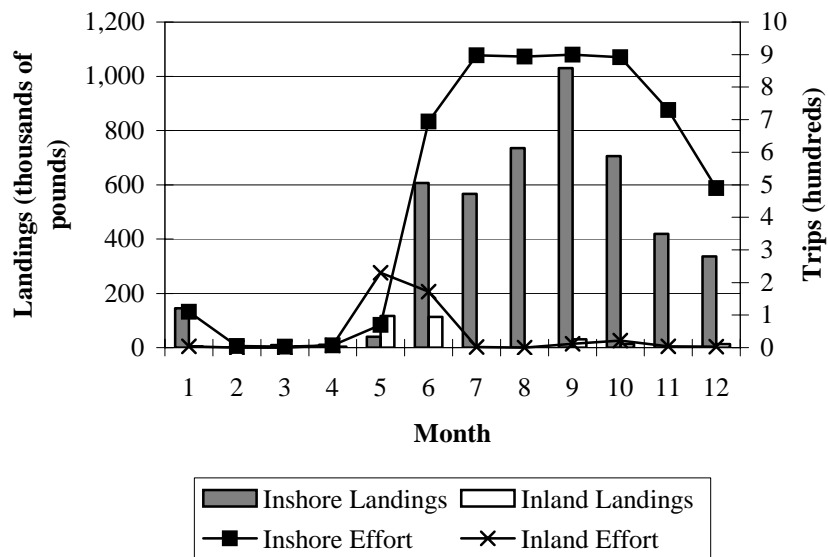


Figure 1. Otter trawl landings and effort in 2004 by month.

#### 4.1.1.3.6. Status of the Fishery

The South Atlantic shrimp fishery has declined dramatically since 2001 (SAFMC 2004). The size and abundance of shrimp have been below those seen from 1995 to 2000 (Delancey 2005).

#### 1.1.1.3.6 Sea Turtle Bycatch

There are no state-run observer programs in the shrimp trawl fishery. Shrimpers have often mentioned capturing sea turtles (Delancey 2005). TEDs are required in trawl nets (SCCOL Section 50-5-765). All trawl nests that harvest shrimp must have a TED if the net is >12' footrope length. As of 2003, no TED is required for hand-retrieved trawls. There are tow time restriction of 55 minutes (April 1 to October 31) and 75 minutes (November 1 to March 31). Trawl nets with >12' footrope must have a TED.

#### 1.1.1.3.7 Laws and Regulations

The shrimp trawl season is regulated by seasonal closure and restricted to specific areas by state law. The maximum combined footrope is 220 feet (67 meters). Shrimp trawls may only be operated during the following times: April 1 to August 31 5:00am to 9:00pm; September 1 to October 31 6:00am to 8:00pm; November 1 to March 31 6:00am to 7:00pm (Delancey 2005).

#### 1.1.1.4 Whelk Trawls

##### 1.1.1.4.1 Targeted Species

Whelk trawls target whelk.

##### 1.1.1.4.2 Number of Licensed and Active Fishermen

For the total number of otter trawl licenses issued from 2001 to 2005 and the number of active fishermen in 2004, see section 4.1.1.1.2.

#### 1.1.1.4.3 Effort

For areas open to trawling see SCMRA Section 50-5-700. The season for whelk trawling opens in late winter and early spring when offshore bottom waters are less than 55 degrees. One criterion for closure is water temperature. It is internal DNR policy that whelk trawling will close for the season throughout the state six days after water temperatures first hit 64 degrees. It is unlawful to trawl at night (SCCOL Section 50-5-735). Information on the depth fished is not available.

#### 1.1.1.4.4 Status of the Fishery

There was no information available on the status and trends in the whelk trawl fishery.

#### 1.1.1.4.5 Sea Turtle Bycatch

The whelk trawl fishery has anecdotal information on sea turtle takes. TEDs are not required in whelk trawls (Murphy 2006). The season for whelk trawling opens in late winter and early spring when offshore bottom waters are less than 55 degrees. One criterion for closure is water temperature. As stated in 4.1.1.4.3, whelk trawling will close for the season throughout the state six days after water temperatures first hit 64 degrees.

#### 1.1.1.4.6 Laws and Regulations

It is unlawful to trawl at night (SCMRA Section 50-5-735).

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## APPENDIX 1. DATA TABLES

Table 1-1. Otter trawl landings and effort in 2004 by month

<b>Month</b>	<b>Inland Landings (pounds)</b>	<b>Inland Effort (trips)</b>	<b>Inshore Landings (pounds)</b>	<b>Inshore Effort (trips)</b>
<b>1</b>	144,681	110	4,191	4
<b>2</b>	707	5	0	0
<b>3</b>	9,295	3	0	0
<b>4</b>	10,463	7	3,562	7
<b>5</b>	40,394	70	117,241	230
<b>6</b>	607,033	694	113,166	172
<b>7</b>	566,514	898	1,288	2
<b>8</b>	735,356	894	0	0
<b>9</b>	1,030,258	900	30,992	12
<b>10</b>	705,261	892	13,064	22
<b>11</b>	418,803	730	1,137	4
<b>12</b>	336,651	490	12,985	3